

WHAT IS CLAIMED IS:

1. A method of preparing a polishing pad suitable for
chemical mechanical polishing of a semiconductor wafer,
comprising:

providing a polishing pad having an hygroscopic absorbency;
soaking the polishing pad with an aqueous medium for a time
sufficient to equilibrate the pad to prior to polishing with the
pad; and

placing the polishing pad on a polishing platen subsequent
to the soaking.

2. The method as recited in Claim 1 wherein soaking
includes soaking at about 10°C to 45°C and ambient pressure.

3. The method as recited in Claim 1 wherein soaking
includes soaking at ambient temperature and pressure.

4. The method as recited in Claim 1 wherein soaking
includes soaking in aqueous media for a time sufficient to
equilibrate the pad to at least about 10% to about 50% or more of
the pad's maximum absorbency.

4. The method as recited in Claim 1 wherein the pad
2 comprises a polymer selected from the group consisting of:

3 6,6 nylon;

4 6,12 nylon;

5 polyketone; and

6 polyurethane.

5. The method as recited in Claim 1 wherein the soaking is
2 performed for a time ranging from about 3 hours to about 2 weeks.

6. The method as recited in Claim 1 wherein the soaking is
2 performed for a time ranging from about 3 hours to about 48
3 hours.

7. The method as recited in Claim 1 wherein the soaking is
2 performed for a time ranging from about 15 hours to about 30
3 hours.

8. The method as recited in Claim 1 wherein the aqueous
2 media includes an additive.

9. The method as recited in Claim 8 wherein the additive
2 comprises a buffer.

10. The method as recited in Claim 9 wherein the buffer is
2 an acidic buffer having a pH ranging from about 2.0 to about 7.0.

11. The method as recited in Claim 9 wherein the buffer is
2 a basic buffer having a pH ranging from about 7.0 to about 14.0.

12. The method as recited in Claim 8 wherein the additive
2 is selected from the group consisting of an oxidant, an abrasive,
3 and an organic amine.

13. The method as recited in Claim 12 wherein the organic
2 amine is ethanol amine.

14. The method as recited in Claim 12 wherein the abrasive
2 is selected from the group consisting of alumina and silica.

15. A method of packaging a polishing pad for use in
2 polishing a semiconductor wafer, comprising:
3 placing a polishing pad in a container configured to retain
4 an aqueous medium therein;
5 placing an aqueous medium in the container in a quantity
6 sufficient to allow the polishing pad to equilibrate; and
7 sealing the container.

16. The method as recited in Claim 15 wherein said placing
2 includes maintaining the aqueous media at about 10°C to 45°C and
3 ambient pressure.

17. The method as recited in Claim 15 wherein said placing
2 includes maintaining the aqueous media at ambient temperature and
3 pressure.

18. The method as recited in Claim 15 wherein said placing
2 includes maintaining the aqueous media for a time sufficient to
3 equilibrate the pad to at least about 10% to about 50% or more of
4 the pad's maximum absorbency.

19. The method as recited in Claim 15 wherein the pad
2 comprises a polymer selected from the group consisting of:

3 6,6 nylon;
4 6,12 nylon;
5 polyketone; and
6 polyurethane.

20. The method as recited in Claim 15 wherein the aqueous
2 medium includes an additive.

21. The method as recited in Claim 20 wherein the additive
2 comprises a buffer.

22. The method as recited in Claim 21 wherein the buffer is
2 an acidic buffer having a pH ranging from about 2.0 to about 7.0.

23. The method as recited in Claim 21 wherein the buffer is
2 a basic buffer having a pH ranging from about 7.0 to about 14.0.

24. The method as recited in Claim 20 wherein the additive
2 is selected from the group consisting of an oxidant, an abrasive,
3 and an organic amine.

25. The method as recited in Claim 24 wherein the organic
2 amine is ethanol amine.

26. The method as recited in Claim 24 wherein the abrasive

2 is selected from the group consisting of alumina and silica.

27. A packaged polishing pad, comprising:

2 a sealable moisture tight package having a dimension
3 sufficient to contain a polishing pad therein; and
4 a polishing pad soaked in an aqueous medium and located
5 within the sealable moisture tight package.

28. The packaged polishing pad as recited in Claim 27

2 wherein the aqueous media is maintained at about 10°C to 45°C and
3 ambient pressure.

29. The packaged polishing pad as recited in Claim 27

2 wherein the aqueous media is maintained at ambient temperature
3 and pressure.

30. The packaged polishing pad as recited in Claim 27

2 wherein the aqueous media is maintained for a time sufficient to
3 equilibrate the pad to at least about 10% to about 50% or more of
4 the pad's maximum absorbency.

31. The packaged polishing pad as recited in Claim 27

2 wherein the pad comprises a polymer selected from the group
3 consisting of:

4 6,6 nylon;

5 6,12 nylon;
6 polyketone; and
7 polyurethane.

32. The packaged polishing pad as recited in Claim 27
2 wherein the aqueous medium includes an additive.

33. The packaged polishing pad as recited in Claim 32
2 wherein the additive comprises a buffer.

34. The packaged polishing pad as recited in Claim 33
2 wherein the buffer is an acidic buffer having a pH ranging from
3 about 2.0 to about 7.0.

35. The packaged polishing pad as recited in Claim 33
2 wherein the buffer is a basic buffer having a pH ranging from
3 about 7.0 to about 14.0.

36. The packaged polishing pad as recited in Claim 32
2 wherein the additive is selected from the group consisting of an
3 oxidant, an abrasive, and an organic amine.

36. The packaged polishing pad as recited in Claim 32

2 wherein the organic amine is ethanol amine.

37. The packaged polishing pad as recited in Claim 35

2 wherein the abrasive is selected from the group consisting of
3 alumina and silica.

38. The packaged polishing pad as recited in Claim 27

2 wherein the sealable moisture tight package is comprised of a
3 flexible plastic material.

39. The packaged polishing pad as recited in Claim 38

2 wherein the flexible plastic material is a heat sealable
3 material.

40. The packaged polishing pad as recited in Claim 38

2 wherein the flexible plastic material is mechanically sealable.

41. The packaged polishing pad as recited in Claim 27

2 wherein the pad is pre-soaked subsequent to location in the
3 package.

42. The packaged polishing pad as recited in Claim 41
2 wherein the pad is pre-soaked for a period of time ranging from
3 about 3 hours to about 2 weeks.

43. The packaged polishing pad as recited in Claim 41
2 wherein the pad is pre-soaked for a period of time ranging from
about 15 hours to about 30 hours.